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June 15, 1994

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Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W. - Room 222  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

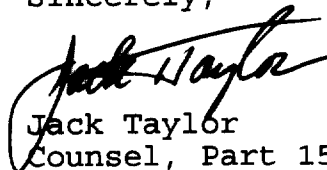
Re: **Comments of The Part 15 Coalition in ET Docket No. 94-32.**

Dear Mr. Caton:

Transmitted herewith are an original and four copies of the comments of the Part 15 Coalition in the above referenced proceeding.

If you have any questions with regard to this matter, please do not hesitate to contact me. I can be reached at 916/685-6240.

Sincerely,



Jack Taylor  
Counsel, Part 15 Coalition

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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
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JUN 14 1994

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of	)	
	)	
Allocation of Spectrum Below	)	ET Docket NO. 94-32
5 GHz Transferred from	)	
Federal Government Use	)	
	)	

**COMMENTS OF THE PART 15 COALITION****I. INTRODUCTION**

The Part 15 Coalition ("The Coalition"), by its attorney, hereby submits its comments in response to the FCC's Notice of Inquiry (NOI) in the above captioned proceeding. The NOI seeks information on potential applications for 50 MHz of spectrum that is being transferred from Federal Government to private sector use. The goal of the proceeding is to identify new and enhanced services which could result from the allocation of this spectrum. The Part 15 Coalition is opposed, for reasons discussed below, to any allocation by the FCC in spectrum currently occupied by non-licensed part 15 devices.

One of the spectrum blocks identified in this proceeding is 2402-2417 MHz. This block is located within the 2400-2483.5 MHz band which is allocated for Industrial, Scientific and Medical applications (ISM) and is also available for devices operating under the FCC's Part 15 rules on an unlicensed basis.<sup>1</sup>

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<sup>1</sup>See 47 C.F.R. Sections 15.247, 15.245 and 15.249.

The principal focus of the Part 15 Coalition members' expertise is in research, development, manufacturing and marketing unlicensed devices which operate under the FCC's Part 15 rules in the three ISM bands.<sup>2</sup> The Coalition's comments, in this proceeding, will be restricted to the future use of the 2402-2417 MHz block of spectrum proposed to be reallocated from Government to private sector use.

## II. BACKGROUND

The Coalition, represents over 40 companies involved in the development and marketing of unlicensed wireless products designed to operate under the Commission's Part 15 rules. The following are a few examples of the hundreds of application specific devices produced by manufacturers under the Part 15 rules: digital cordless telephones, electronic article surveillance equipment, utility metering devices, fire and security alarm devices, wireless bar code readers, airborne and marine collision avoidance systems, local area networks and other point-to-point and point-to-multipoint devices.

The development of these products was made possible by the Commission's Part 15 rules which encouraged companies to invest in the development of non-licensed products in the ISM bands. In compliance with the Part 15 rules, manufacturers have implemented the most advanced radio technology, including spread spectrum, to permit interference sharing among other unlicensed

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<sup>2</sup> The three ISM bands are: 902-928 MHz, 2400-2483.5 MHz and 5700-5825 MHz.

Part 15 devices and other users of the ISM bands. Part 15 manufacturers have established a major wireless industry through compliance with and reliance upon the FCC's Part 15 rules.

### III. DISCUSSION

Over the last nine years the Commission has instituted a series of Part 15 rule changes to encourage the development of new non-licensed spread spectrum devices. The latest of these rule changes was released in 1990 to "facilitate greater flexibility in the design and use of low power, non-licensed spread spectrum systems."<sup>3</sup> The successful development of the first commercial spread spectrum equipment is directly attributable to the Commission's foresight in establishing a regulatory environment that permitted innovation in the ISM bands.

As result of this regulatory environment, the number of companies producing commercial Part 15 spread spectrum devices has grown from literally zero to the hundreds in the short span of less than a decade. The Part 15 industry employs tens of thousands of employees and has invested nearly 2 Billion dollars in research, development, manufacturing and marketing of Part 15 non-licensed devices.

The 2402-2417 MHz band, identified by the NTIA for transfer from government to private sector use, is part of the 2400-2483.5

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<sup>3</sup>Report and Order, Docket No. 89-354, FCC 90-233, Released July 9, 1990.

MHz ISM allocation that is already in use by the private sector. In addition to Part 15 use, the amateur radio service as well as nearly 80 million microwave ovens are located in this band.

The Commission could not allocate this band for a licensed service without disrupting the existing users and incurring unacceptable interference to any new proposed service. In fact, if an allocation was made to a licensed user in this band the situation would be similar to that currently encountered in the lower ISM band: 902-928 MHz. In that band, the Commission proposed to license a new location and monitoring service. The proceeding has not moved forward because of the real concern over interference from other users of the 902-928 MHz band. The proceeding has just entered its third year and there is no clear path to a resolution of the interference problem.

The Commission can avoid considerable controversy by eliminating this block of spectrum from any future allocation. The current users of this band have co-existed with government users for many years and continued government occupation of this band is tolerable. If, On the other hand, the government abandons this band and the FCC doesn't license a new service there, then it would continue to be a desirable location for future innovative non-licensed devices.

Although many non-licensed Part 15 devices are located in the 900 MHz ISM band because of the cost of components for price sensitive consumer electronics, the 2400-2483.5 MHz band is now attractive to many non-licensed device manufacturers. It has been

also adopted by the IEEE as the band for all radio devices operating under their proposed 802.11 standard which is now in advanced draft form.

The establishment of the U.S. PCS industry in the 2 GHz band coupled with the large 2 GHz market in Europe for wireless systems is already resulting in a rapidly declining cost curve worldwide for 2 GHz components. These declining costs have attracted several Part 15 companies that already have non-licensed devices operating in the 2400-2483.5 MHz band.

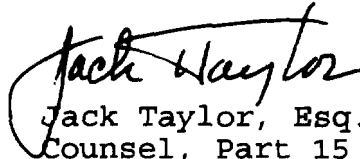
As a result, the Commission should be extremely careful about taking any action in the 2402-2417 MHz block of spectrum that would eliminate this band as a location for future wireless technology innovation.

#### IV. CONCLUSION

The 2402-2417 MHz band is unusable for new and emerging licensed technology. The current non-licensed users of this band cannot nor should not be displaced. This band is a primary home for current and future non-licensed innovative technology. It, along with the lower band ISM at 902-928 MHz, has stimulated a multi-billion non-licensed industry operating under the FCC's Part 15 rules. Any action by the Commission to license a new service in this band will cause the diversion of untold millions of dollars of R&D, manufacturing and curtail the growth of the non-licensed, Part 15 industry.

Accordingly, the Commission should not license a service in this band and should consider returning this block of spectrum to primary Federal Government use.

Sincerely,



Jack Taylor, Esq.

Counsel, Part 15 Coalition

June 15, 1994

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